

Vacuum Discharge Gap with ...

S/120/61/000/002/025/042
E210/E594

$C = 16 \mu F$, is charged to 800 V. At the moment of arrival of the starting signal to the grid of the thyatron a positive potential is fed to the anode 2 and an oscillating surge discharge occurs in the ignition system. The discharge gap is fired by electrons which are extracted from the oscillating discharge by the electric field which is applied to the main electrodes. For measuring the delay time of the breakdown in the discharge gap relative to the igniting discharge, a low ohm potentiometer R_1-R_2 is connected in series in the centre of the circuit (switch $K-1$ is in the position 1) and in the discharge circuit only the capacitance $C_1 = 12 \mu F$ is switched on instead of the condenser bank $C_1 = 5400 \mu F$ and the load L . A part of the voltage of the discharge circuit is taken from the potentiometer R_3-R_4 when the switch K_2 is in the position 1. The signal from the potentiometer R_3-R_4 is fed to the plates of the oscillograph beam II and from the potentiometer R_1-R_2 to the input of the beam I amplifier. Fig.2 shows oscillograms of the discharge current in the ignition system I and the initial process of the breakdown in the discharge gap II ($U = 3 \text{ kV}$; time marking as shown in 50 μsec). In the ignition system^p the

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beginning of the current and voltage pulses coincide. The delay time of the discharge is $\tau = 20 \mu\text{sec}$; it decreases with increasing ignition voltage U_i and increasing discharge gap voltage U_p . For $U_p = 5 \text{ kV}$ and $U_i = 1000 \text{ V}$, $\tau_{av} = 10 \mu\text{sec}$ and the average variance in the ignition delay time is $\Delta\tau = 0.5$ to $1 \mu\text{sec}$. Acknowledgments are expressed to A. I. Zakharov for his assistance. There are 3 figures and 6 references: 3 Soviet and 3 non-Soviet.

SUBMITTED: April 2, 1960

800 V

Text in Fig.1. Geometrical arrangement same as in figure.

To beam
I amplifier OK17

Starting
signal
block

To pump

5 kV

Rogovskiy
belt

To beam II plates
OK17

To beam II plates OK17

To beam
I amplifier OK17

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Fig. 1

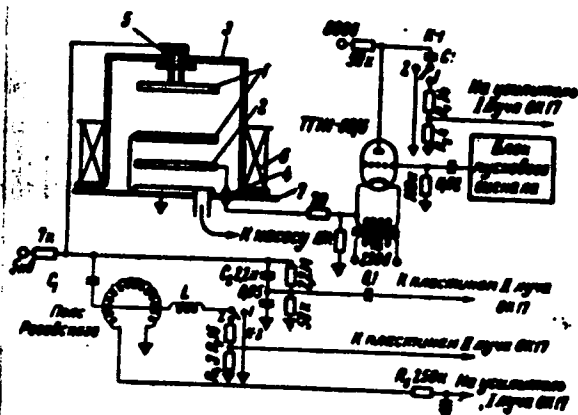
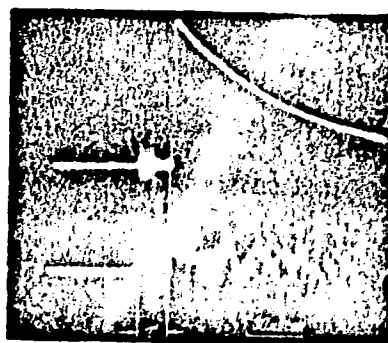


Fig. 2



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NASTYUKHA, A.I.; POPOV, B.M.; VINOGRADOVA, L.I.

Ion injector for a cyclotron and phasotron. Fiz. elek. no.1:
90-94 '62. (MIRA 17:1)

SOKOL'SKIY, V.V.; NASTYUKHA, A.I.; LOBIKOV, Ye.A.

Power supply of a system for studying a heavy-current pulse
discharge. Fiz. elek. no.1:118-123 '62. (MIRA 17:1)

MASTYUKHA, A.I.; LOBIKOV, Ye.A.

Time measuring device using decatrons. Fiz. elek. no.1:
127-130 '62. (MIRA 17:1)

41568

S/057/62/032/010/006/010
B104/B102

26.2212

AUTHORS: Lobikov, Ye. A., and Nastyukha, A. I.

TITLE: Study of the energy distribution of the electrons and ions in a high-amperage toroidal discharge

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 10, 1962, 1223-1229

TEXT: Electron traps (Fig. 1) and a magnetic analyzer were used to measure the energy distributions of the electrons and ions in glow discharges with current densities up to 100 a/cm^2 and with weak fields such as in Al'fa or Zeta-type toroidal chambers (V. A. Glukhin et al., ZhTF, XXXI, 1394, 12, 1960; Batt et al. Proceedings of the II International Conference on the Peaceful Uses of Atomic Energy, Geneva). The measurements were made directly by the method of the retarding potential. The energy distributions for the moment at which the electron and ion signals reach a maximum were determined from several oscillograms relating these signals to the amperages of the discharge. The electron and ion temperatures and the energy E_0 of the oriented particle motion were determined from $a = \sqrt{E_0}/kT$ in the relations

Card 1/4

Study of the energy ...

3/057/62/032/010/006/010
B104/B102

$$J^+(u) = A' \omega \left\{ [x(x-a)+1] e^{-(x-a)^2} + \frac{\sqrt{\pi}}{2} a [1 - \Phi(x-a)] \right\},$$

$$J^-(u) = A' \omega \left\{ [x(x+a)+1] e^{-(x+a)^2} - \frac{\sqrt{\pi}}{2} a [1 - \Phi(x+a)] \right\},$$

$$x = \sqrt{\frac{eu}{kT}}, \quad a = \sqrt{\frac{m v_0^2}{2kT}}, \quad \Phi(x \pm a) = \frac{2}{\sqrt{\pi}} \int_0^{x \pm a} e^{-t^2} dt, \quad \text{holding for the particle fluxes. Results: At a discharge voltage}$$

$u_p = 1.5$ kv, an external longitudinal magnetic field $H = 300$ oe and a pressure of $4 \cdot 10^{-3}$ mm Hg the electron temperature is $kT_e = 4.2$ ev, $E_0 = 0.8$ ev; at $u_p = 1$ kv (the other parameters being the same) $kT_e = 2.4$ ev, $E_0 = 1.4$ ev; at $u_p = 2$ kv $kT_e = 4.5$ ev, $E_0 = 1$ ev. If the pressure is reduced then kT_e decreases to 3.7, and E_0 increases to 3.0 ev. At $u_p = 1.5$ the ions have the following parameters: $kT_i = 3.6$ ev, $E_0 = 0.04$ ev. The electron and ion temperatures remain unchanged when the magnetic field varies between 50 and 300 oe. The considerable directional asymmetry of the electron energy spectrum is caused by the high drift velocity of the

Card 2/4

Study of the energy ...

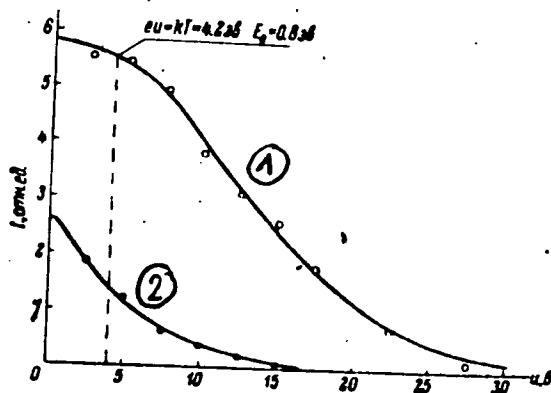
S/057/62/032/010/006/010
B104/B102

electrons. Only a small part of the discharge energy is consumed for heating the plasma. There are 7 figures.

SUBMITTED: October 21, 1961 (initially)
March 22, 1962 (after revision)

Fig. 6. Energy spectra for
 $u_p = 1.5$ kv, $H = 300$ oe, $p = 4 \cdot 10^{-3}$ mm
Hg.

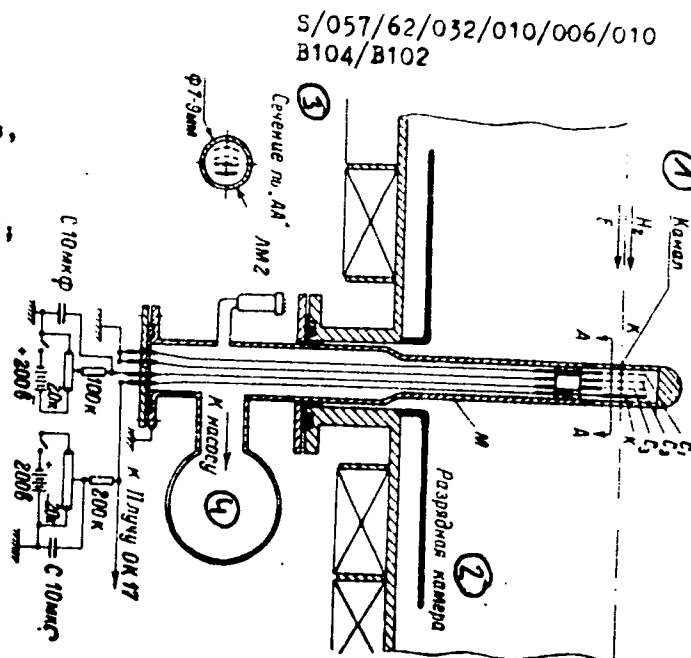
Legend: (1) electrons; (2) ions.



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Study of the energy ...

Fig. 1. Electron trap.
Legend: C_1 , C_2 and C_3 grids,
M copper or steel tube; (1)
channel; (2) discharge
chamber; (3) section at "AA";
(4) to pump.



Card 4/4

LOBIKOV, Ye.A.; NASTYUKHA, A.I. .

Study of electron energy spectra of a toroidal discharge
in a "Beta" machine. Zhur. tekhn. fiz. 32 no.12:1492-1493
D '62. (MIRA 16;2)

(Beta-ray spectrometer)
(Electric discharges)

L 12912-63

EWT(1)/EWG(k)/BDS/ES(w)-2

AFFTC/ASD/ESD-3/AFWL/SSD

Pz-L/Pi-L/Po-L/Pab-L AT/IJP(C)

ACCESSION NR: AP3007327

S/0097/63/033/006/0686/0692

86
80

AUTHOR: Yubov, Yu. G.; Koltz"pin, Ye. A.; Lobikov, Ye. A.; Nastrukha, A. I.

TITLE: Investigation of the energy spectra of the electrons and ions penetrating the face of a magnetic mirror apparatus

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 6, 1963, 686-692

TOPIC TAGS: plasma diagnostics, plasma compression

ABSTRACT: The energy spectra of the electrons and ions in a plasma bunch in a magnetic mirror apparatus were measured with a simple "lateral collector" consisting of three grids and a collecting plate in a 16 mm brass tube. The first two grids were held at ground potential, a saw-tooth cut-off voltage was applied to the third grid, and the collector current (less than 15 microamperes) was measured. /Abstractor's note: The experiments appear to have been undertaken at least partly to test the usefulness of this simple device. The hydrogen plasma was formed in a source similar to that described by D. Marahal (Transactions of the Second International Conference on Peaceful Uses of Atomic Energy, Geneva, 1958.) and injected into a 15 cm diameter stainless steel tube 200 cm long. The tube was located in a constant magnetic field of 100 to 200 oe. A pulse field that rose in 250 microseconds

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L 12912-63

ACCESSION NR: AP5001327

to 6 koe at the center of the tube and 10 koe in the mirror regions provided adiabatic compression. Two measuring collectors were located, one at the center of the tube and the other at the end, 10 to 15 cm behind the magnetic mirror. Different collectors were used to measure the electron spectra and the ion spectra. Oscillograms and energy distribution curves are given for the electrons and the ions at both locations with and without magnetic compression. Plateaus in the apparent electron spectra (without magnetic compression) are ascribed to a potential difference between the plasma bunch and the apparatus. The potential is negative at the head of the plasma bunch and increases (algebraically) along its length. A similar plateau in the ion energy spectrum is ascribed to the large forward velocity of the plasma bunch (10 cm μ s per sec). Spectra of the electrons penetrating the magnetic mirror show that the electron energy increases during compression for about 50 microsec and subsequently decreases. The mean energy of the electrons is 10 eV. The authors express their gratitude to Prof. B.M. Gekker, G.S. Yan'kov and A.V. Zhurav for their interest in the work and for valuable discussions, and also to A.I. Zakharenko, V.S. Zaytsev and Z.I. Simakova for aid in conducting the experiments and fabricating the collectors." Orig. art. has: 11 figures.

ASSOCIATION: none

SUBMITTED: 12/2/62

SUB CODE: 00

2/2

DATE ACQ: 01/2/63
NO REF SOV: 002

ENCL: 00
OTHER: 002

NASTYUKHA, A.I.; TSYGANOV, E.N.

Study of the trajectories of ions escaping from the ejector in
the central region of a cyclotron. Fiz. elek. no.1:51-59 '62.
(MIRA 17:1)

ACCESSION NR: AP4040322

8/0057/84/034/006/1131/1132

AUTHOR: Averin, V.G.; Lobikov, Ye.A.; Nastyukha, A.I.

TITLE: Measurement of the electron density distribution in the toroidal discharge of the "beta" installation (Letter to the editor)

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.6, 1964, 1131-1132

TOPIC TAGS: plasma, electron density, particle distribution, discharge plasma, Beta installation

ABSTRACT: The electron density distribution in the toroidal discharge of the "beta" installation was determined from the current and electron energy distributions. The current and velocity distributions were measured with a special probe consisting of an 11 mm diameter stainless steel cylinder containing a $6 \times 9 \text{ mm}^2$ collecting electrode. An 0.02 mm thick tantalum foil with an 0.05 mm diameter opening for entrance of electrons was welded to one wall of the cylinder, and the instrument could be located at various positions within the discharge with the opening either up stream or down. A pressure of about 10^{-4} mm Hg was maintained within the probe by separate pumping. The characteristic curves obtained with this probe are not discussed. The

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ACCESSION NR: AP4040322

electron density decreased monotonically with distance from the axis of the discharge and fell to zero at the wall of the tube at a distance of 10.5 cm from the axis. The decrease of electron density with increasing radius was at first very slow, the density decreasing by only 10% in the first 6.5 cm. The maximum electron density was $3 \times 10^{13} \text{ cm}^{-3}$ with a discharge current of 80 kA and $7 \times 10^{13} \text{ cm}^{-3}$ with a discharge current of 90 kA. The plasma did not break from the wall and form a filament at this current. Orig.art.has: 2 figures.

ASSOCIATION: none

SUBMITTED: 02Jul63

DATE ACQ: 19Jun64

ENCL: 00

SUB CODE: NP, ME

NR REF SOV: 003

OTHER:002

Card 2/3

RUMANIA

NASTU, C., Dr, Maj, and ANDRONESCU, Gh., Eng, Maj [affiliation not given]

"Some Observations on the Efficiency and Necessity of Protective Nutrition for Personnel Working with Special (Oxidating) Fuels."

Bucharest, Revista Sanitara Militara, Vol 62, No 5, Sep-Oct 66, pp 901-907.

Abstract: A report on an experimental study involving two lots of three dogs each to determine whether a protective diet is effective in protecting animals subject to intoxication with oxidating substances. While the small number of animals involved means that the results cannot be considered definitive, the authors did find a protective diet effective and suggest tests to determine whether it will be equally effective in protecting military personnel.

Manuscript submitted 11 April 1966.

AUTHORS: Fedayevskiy, K. K. Nastyukova, G. K. 57-28-7-28/35

TITLE: A Cylindrical Body With Intense Drag Crisis (Tsilindricheskoye telo s intensivnym krizisom soprotivleniya)

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1958, Vol. 28, Nr. 7, pp. 1556 - 1561 (USSR)

ABSTRACT: One can imagine a cylindrical body in which the laminar boundary layer in the middle of the body and the turbulent boundary layer near the rear edge of the body interchange. Such a cylindrical body is investigated by the authors. In the case of bodies that can be circumflowed only with difficulty the drag crisis becomes more intense the more the vortex domain behind the body narrows down with the increase of the Re number. Therefore the strongest crisis is to be expected with such a body where the tearing-off of the laminar boundary layer corresponding to its maximum thickness takes place and where the tearing-off of the turbulent boundary layer possibly takes place at the rear edge. The results of an experimental investigation of the drag crisis in the case of a cylindrical body corresponding approximately to these

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A Cylindrical Body With Intense Drag Crisis

SOV/ 57-28-7-28/35

conditions are given. For these investigations the authors carried out a special experiment in the wind tunnel. The investigations were carried out with two geometrically similar models. For measuring the pressure according to the profile the models were drained in the middle of the cross-section width. Besides, the models were investigated by means of interceptors fixed to the lower and upper surface of the model over the whole width. The program for the experiments consisted of finding the value for the front drag factor and for the pressure distribution over the cross section at various velocities of the air flow. The velocity of the air flow varied from 5 to 50 m/sec. The diameter of the wind tunnel in closed state was 3 m. The investigations carried out showed the existence of cylindrical bodies with a more intense drag crisis than in the case of the circular cylinder. In the case of the investigated cylindrical body the pressure distribution changes profoundly due to the crisis, while the front drag factor becomes by about 5 times smaller. Therefore it can be assumed that in the case of the investigated cylindrical body the tearing-off of the laminar boundary layer takes place near the middle of the body while in the presence of a turbulent boundary layer the circumflowing

Card 2/3

A Cylindrical Body With Intense Drag Crisis

CV, 57-28-7-28/35

takes place without any tearing-off. There are 6 figures
and 1 reference.

SUBMITTED: **October 3, 1957**

1. Cylindrical surfaces--Drag

Card 3/3

Susceptibility of Infusoria to ultraviolet rays as related
 to the colloidal properties of their protoplasm changed
 by means of different physicochemical methods. V. V.
 Alpatov and O. E. Nostrovskaya. *Compt. rend. acad.
 sci. U. R. S. S. R.* 195 6 (in English 506 601) (1954).
 A soln. (I) of 1 part 5% Na_2SO_4 to 5 parts of Bressi
 medium and a soln. (II) of 3 61% KSCN in 30 parts of
 medium have no appreciable influence on the rate of rate
 of division of *Paramecium caudatum*, but the organisms
 in I were 4 times as resistant to ultraviolet radiation as
 controls, while those in II were much more sensitive.
 Electrolytes which cause colloids to swell decrease re-
 sistance to ultraviolet radiation, while those which cause
 shrinking increase resistance. Increase in viscosity
 produced by an elec. current increases resistance to ultra-
 violet radiation (measured by the no. of progeny), and
 decrease in viscosity produced by chelators markedly
 decrease resistance. W. F. Bruce

CA

114

Theory of vital staining. H. G. Roskin and O. Nadyr-
yan. *Izvest. Akad. Nauk. Med.* 10, 66-7(1963); C.
A. B., 28519. — A call is made, even under anaerobic
conditions, of changing the colorless leucobase into methyl-
violet blue; in anaerobic conditions the change is less in-
tense, only a light blue color being produced easily. The
presence of O_2 greatly enhances this "vital" coloration.
The diffusion coloring of the nucleus and plasma occurs
both aerobically and anaerobically. G. M. Koshchepov

ASSOCIATE METALLURGICAL LITERATURE CLASSIFICATION

BOOK SYMBOLS

COUNTRY

1930-1940 NEW DAY CODE

PUBLISHED

BOOK SYMBOLS

PUBLISHED NEW DAY CODE

NASTYUKOVA, O. K.

"Malignant Growth in Man as Diagnosed by Blood Serum Toxicity for
Paramoecia," Dokl. AN SSSR, 43, No.8, 1944.

Inst. Zoology, Lomonosov State U., Moscow

117 AND 118 CORDS		119 AND 120 CORDS	
PROCESSING AND PROPERTIES INDEX			
CA		11C	
Specificity of action of optical isomers of neopentyl upon central and chiral strains of <i>Bacillus mycoides</i> Filippo V. V. Alpatov and O. K. Nasyukova. Compl. read. and in U.R.S.S. 84, 317-40 (1944). See C.A 41, 2111d. M. R. Whalley			
550.51.6 METALLURGICAL LITERATURE CLASSIFICATION			
FROM SYNOPTIC		FROM SUMMARY	
100000-110 000 000		100000-110 000 000	
COLLECTION		COLLECTION	

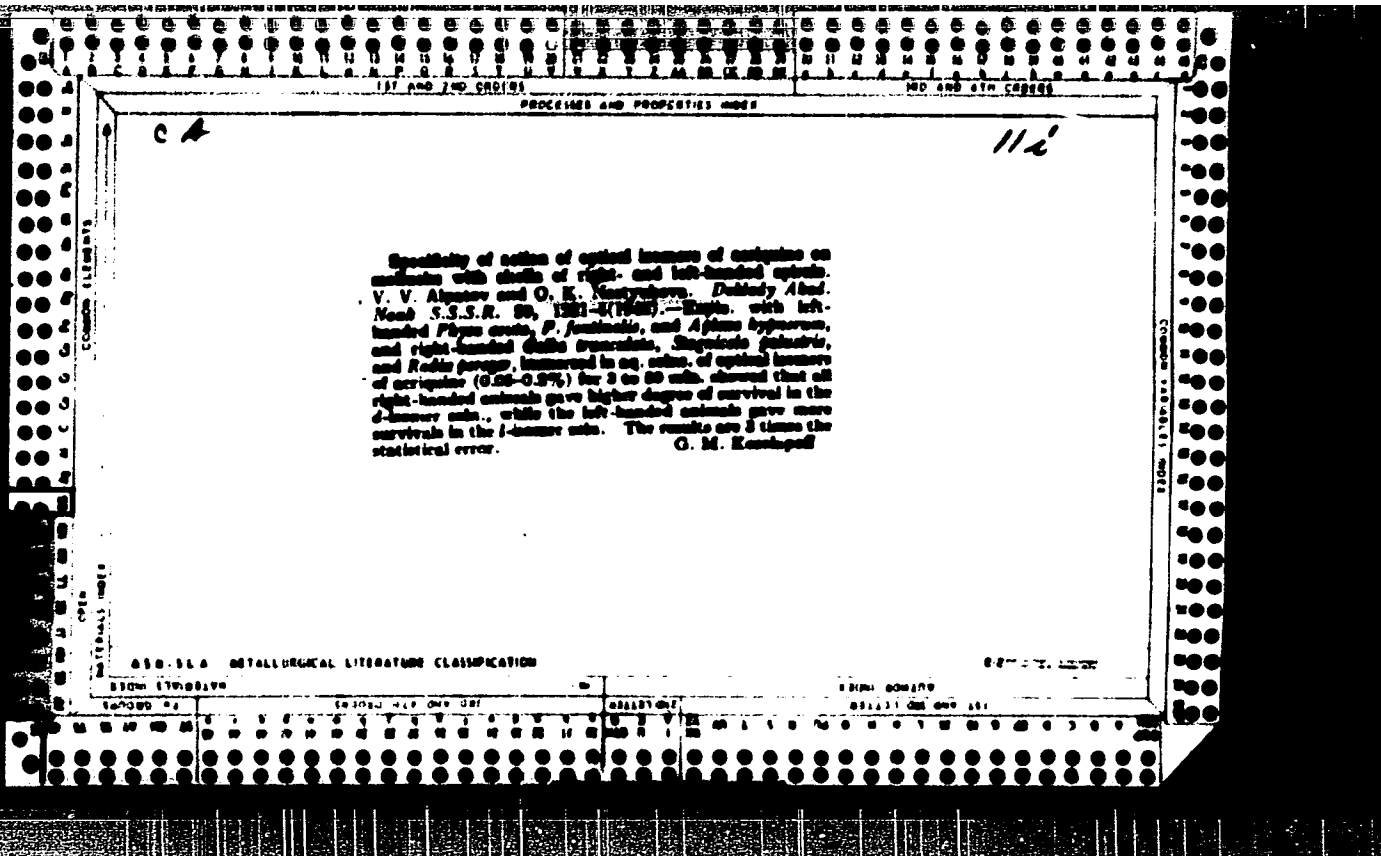
NASTYUKOVA, O. K. and ALFATOV, V. V.

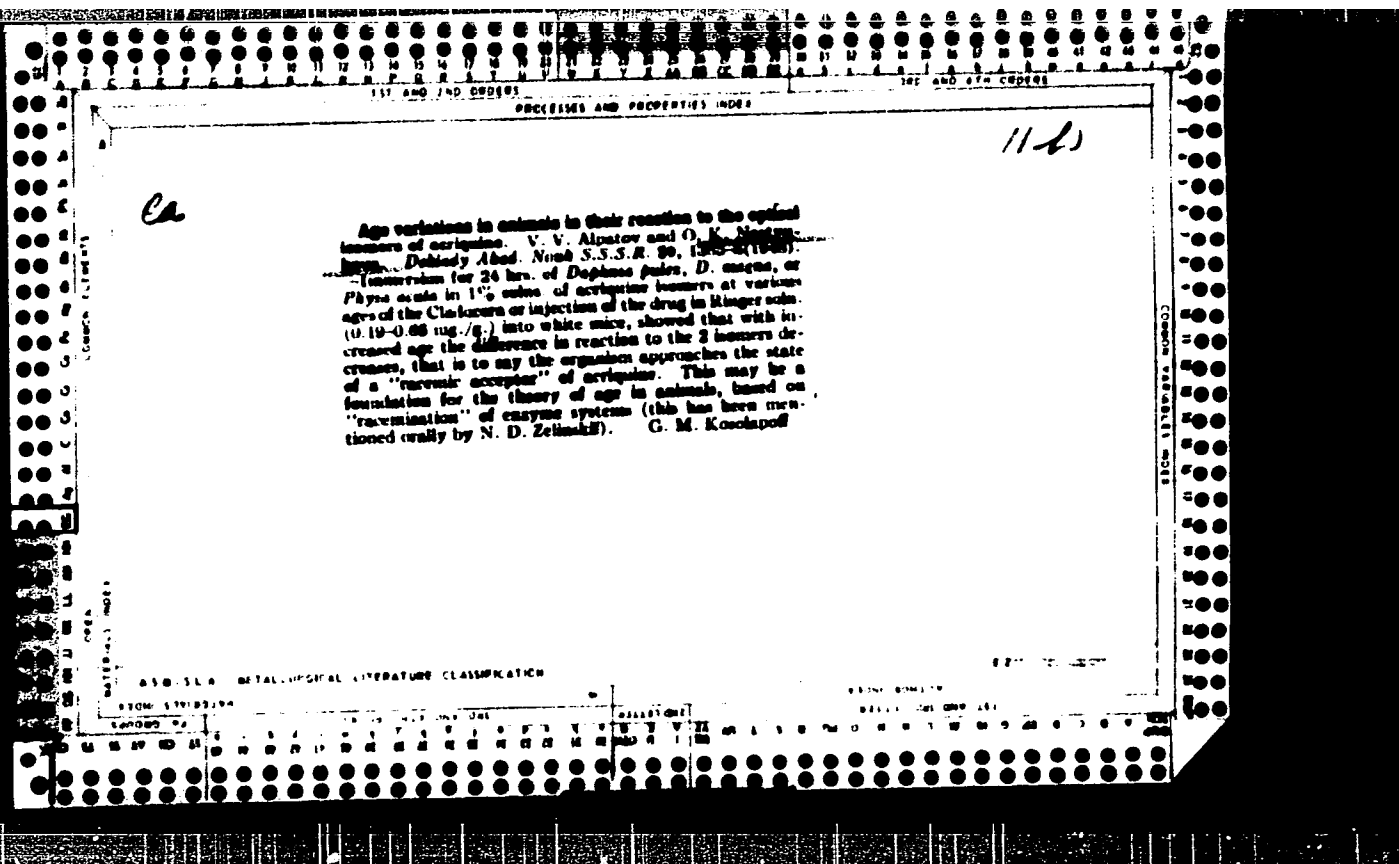
"The specific action of optical isomers of neopairine upon axtral and sinistral strains of Bacillus typhoidis flugie American Review of Soviet Medicine, New York 1947, 5/1 (28-31) Tables 2.

Laboratory of Ecology, Lomonosov State University, Moscow 11989

MO: Medical Microbiology and Hygiene, Section IV, Vol. 1, # 1-6

1ST AND 2ND EDITIONS		3RD AND 4TH EDITIONS	
PUBLICATIONS AND PROPERTIES INDEX			
CA		112	
Ecology and physiology of distal and dorsal forms of <i>Bacillus mycoides</i>. O. K. Nostrovskaya and V. V. Alpatov (Zool. Research Inst., Leningrad Univ., Moscow). <i>Microbiology</i> 17, 45-51 (1968).—Optimum growth temp. is lower for distal than for dorsal <i>B. mycoides</i>. Both forms have low enzyme activity in sucrose saline, with growth rate showing a pos. relation to fermentation activity. Inversion forms are potential aids in studying relations between morphological and mol. inversions, e.g. presence of <i>d</i>-peptidase in distal colonies and specific action of both forms on optical isomers of acrylamide (C.A. 41, 582N). In these tests the study of sucrose saline was facilitated by timing with phenol red. I. P. Smith			
ASB-SEA METALLURGICAL LITERATURE CLASSIFICATION			
EDITION SYMBOLS		EDITION SYMBOLS	
EDITION SYMBOLS		EDITION SYMBOLS	





NASTYUKOVA, O. K.

USSR/Medicine - Atabrine, Effect of Medicine - Zoology

Dec 48

"Depressive Effect of Optical Isomers of Atabrine Organic Acids and Alkaloids on the Heart's Movement in Mollusks With Shells Which Curl in Left or Right Spirals,"
V. V. Alpatov, O. K. Nastyukova, Inst of Zool, Moscow State U ineni M. V. Lomonosov,
34 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 5

Experiments cited on various mollusks are useful as a working basis for asymmetrical analysis of vital processes and as a supplement to derivatives of atabrine and preparations belonging to two groups of natural substances: alkaloids and organic acids. Submitted by Acad L. A. Orbeli 14 Oct 48.

PA 55/49T58

Genetics/Biology - Bacteriophages
Bacteria, Directed Modification
 Mar/Apr 53

"Directed Modification of the Forms of
 B. mycoides Fluegge Colonies by Prolonged
 Breeding on Media Containing Optical Isomers"
 V. V. Alpatov, Moscow

Dop Sov Biol, Vol 35, No 2, pp 300-304

Results obtained together with O. K. Nastyukova

indicate that l-forms and d-forms of
 B. mycoides exhibit a reverse sensitivity to
 optical isomers (specifically those of

255714

quinacrine) in regard to growth, while work by
 E. M. Mittenbach and Ludwig (1951) shows that there
 is also a reverse sensitivity as far as trans-
 formation into the opposite form is concerned.
 G. D. Gauze has shown that optical isomers of
 arginine apparently are used in a different
 manner by l-forms as compared with d-forms.
 Gause's results with quinacrine isomers, which
 differ from those of the author, are due to a
 faulty exptl technique.

PA 255714

255714

ALPATOV, V.V.; NASTYUKOVA, O.K.

Transformation of the head louse *Pediculus humanus* into the body louse
under the effect of changed conditions of life. Biul.MOIP. .biol.
60 no.4:79-92 J1-Ag'55. (MIRA 8:12)

(LICE)

NASTYUS HONOK, S. S.

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NASUDARI, A.A.

Characteristics of the chemical composition of medicinal forms and
galenic-pharmaceutic preparations from various parts of some
species of willow growing in Azerbaijan. Azerb.med.zhur. 42
no.1:43-47 Ja '65. (MIRA 1: 5)

NIKOL'SKAYA, Vera Vasil'yevna; GRIGOR'YEV, Dmitriy Pavlovich; NASULICH, Ildiya
Fedorovna; RIKHTER, G.D., doktor geograficheskikh nauk, otvetstvennyy
red.; POCHINKOV, K.I., red. 1s-d-va; ZHELEKOVA, Ye.V., tekhn. red.

[Zeya-Bureya Plain; papers on its physical geography in relation to
agricultural exploitation] Zeisko-Bureinskaya ravnina; materialy po
fizicheskoi geografii v svyazi s sel'skokhoziaistvennym ispol'sova-
niem. Moskva, 1s-d-vo Akad. nauk SSSR, 1958. 133 p. (MIRA 11:7)
(Zeya-Bureya Plain—Physical geography)

ADIGAMOV, Ya.M.; IOFIN, S.L.; NASUPA, N.A.; FEDOSOV, M.K.; SHCHEPANOV, P.A.

Improving the working of the Zolotushinskoye deposit. Sbor.
trud. VNIITSVETMET no.4120-36 '59. (MIRA 16:8)

(Mining engineering)

NASURDINOV, G.: STRUYEVA, N.

One and a half times the daily standard. Stroitel' 2 no. 4-5:5 Ap-
My '56. (MLRA 10:1)

1. Brigadir montazhnikov zavoda krupnpanel'nogo domostroyeniya, Magnitogorsk (for Nasurdinov). 2. Proizvoditel' rabot zavoda krupnpanel'nogo domostroyeniya, Magnitogorsk (for Struyeva).
(Magnitogorsk--Precast concrete construction)

NAFURI, I.B., aspirant

Clinicomorphological data in some forms of male sterility. Vest.
derm. i ven. no.2181-82 '65.

(MIRA 18:10)

1. Kafedra fakul'tetskoy khirurgii (zav. kursom urologii - prof.
I.P.Krayzel'burd) i kafedra patologicheskoy anatomii (zav. -
prof. V.A.Zhukhin) Bashkirskogo meditsinskogo instituta, Ufa.

NASURI, I.B.

Clinical morphological examination in azoospermia. Urologia.
29 no.3:28-32 My-Je '64. (MIRA 18:10)

1. Fakul'tetskaya khirurgicheskaya klinika (zav. kursom urologii-
prof. L.P. Krayzel'burd) Bashkirskogo meditsinskogo instituta, Ufa.

NASUSEKIN, A.I.; KUSHNIRENKO, S.T.

Results of experiments on growing corn with least labor expenditures.
Mekh. sil'. hosp. 9 no.2:4-6 F '58. (MIRA 11:3)

1.Ministerstvo sil's'kogo gosподarstva USSR.
(Corn (Maize))

GALENKO, M.D. [Halenko, M.D.], nauchnyy rabotnik; NASUSHKIN, A.I., inzh.

Converting pull-type S-6 combines into self-propelled types.
Mekh.sil'.kosp. 9 no.12:5-7 D '58. (MIRA 12:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii
i elektrifikatsii sel'skogo khozyaystva (for Galenko). 2. Mini-
sterstvo sel'skogo khozyaystva USSR (for Nasushkin).
(Combines (Agricultural machinery))

GORSKIY, O.I. [Hors'kyi, O.I.], agronom; NASUSHKIN, A.I., inzh.;
ALEKSEYEVSKIY, Ye.Ye. [Aleksieievs'kyi, IE.IE.], red.;
IYVHENDV, M.V., red.; GULENKO, O.I. [Hulenko, O.I.], tekhn. red.

[Let's transform bogs into fertile lands] Peretvorymo bolota
v rodniuchi zemli. Kyiv, Derzhsil'hospvydav URSR, 1980. 230 p.
(MIRA 16:5)

(Ukraine--Drainage)

WAKSMUNDZKI, Andrzej; OSCIK, Jaroslaw; MATUSEWICZ, Janusz; NASUTO, Rosnald;
ROBYLO, Jan

Structure of silica gels, specifically adsorbing pyridine,
quinoline and acridine. Pt. 1. *Przem chem* 40 no.7:387-390
J1 '61.

1. Katedra Chemii Fizycznej, Uniwersytet im. M. Curie-
Skłodowskiej, Lublin.

NASUTO, Romuald; WAKSMUNDZKI, Andrzej; OSCIK, Jaroslaw; ROZYLO, Jan

The heat of wetting specifically active silica gels with some organic solvents. Przem chem 40 no.8:432-433 Ag '61.

1. Katedra Chemi Fizycznej Uniwersytetu im M. Curie-Sklodowskiej Lublin.

WAKSMUNDZKI, Andrzej; OSCIK, Jaroslaw; NASUTA, Romuald; ROZYLE, Jan

The structure of pyridine adsorption layers on silicagels specifically activated with respect to some heterocyclic bases. Przem chem 40 no.9: 527-529 S '61.

1. Katedra Chemii Fizycznej, Uniwersytet im. Curie-Skłodowskiej, Lublin.

WAKSMUNDSKI, Andrzej; OSCIK, Jaroslaw; ROZYLO, Jan; NASUTO, Romuald

Energetic effects of pyridine adsorption on silicagels specifically activated with respect to some heterocyclic bases. *Przem chem* 40 no.10:565-567 0 '61.

1. Katedra Chemii Fizycznej, Uniwersytet im. M. Curie-Skłodowskiej, Lublin.

WAKSMUNDZKI, Andrzej; CSCIK, Jaroslaw; ROZYLO, Jan; W SUTO, Romuald

Influence of the drying conditions of hydrogels on the change of the adsorption capacity of specific silicagels. Przem chem 41 no.3:129-130 Mr '62.

1. Katedra Chemii Fizycznej Uniwersytetu im. Marii Curie Sklodowskiej

NASVETNIKOV, S., inzh.

Housing construction combine No. 2. ~~201~~1. stroi. no.7:15-17
Jl '61. (MIRA 14:8)
(Minsk--Precast concrete)

NASVETSEVICH, G.

Notes on economics. Vestn. 9 no.1:5-6 Ja '60. (MIRA 13:8)

1. Glavnyy bukhgalter tresta Cherenkhovugol'.
(Cherenkhovo Basin- Coal mines and mining)

NASYBULLIN, S.M.

Courses for the improvement of the qualifications of information
workers in the West Siberian Economic Region. NTI no.5:15 '65.

(MIRA 18:7)

1. Glavnyy inzh. Tsentral'nogo byuro tekhnicheskoy informatsii Zapado-
Sibirskogo soveta narodnogo khozyaystva.

MUDROGINA, N.S.; NASYBULIN, N.N.

Genesis of the silicified rocks in the Shing-Magian region.
Inform.snor.VSEGEI no.46:109-119 '61. (MIRA 15:3)
(Shing Valley--Petrology) (Magian Valley--Petrology)

ME DROSTINA, N.S.; NASYBULIN, N.H.

Structural and morphological types of deposits in the
Zaravshan-Gissar antimony-mercury belt. Trudy VSEGEI 103:
145-153 '64 (MIRA 17:8)

L 21650-66 ENT(d)/ENT(m)/ENP(w)/ENP(f)/EPF(n)-2/ENP(v)/T-2/ENP(k)/ETC(m)-6 WJ/RM
 ACC NR: AP6006138 SOURCE CODE: UR/0114/65/00/010/0022/0025

AUTHORS: Shvets, I. I. (Academician AN UkrSSR); Dyben, Ye. P. (Candidate of technical sciences); Stradomskiy, M. V. (Candidate of technical sciences); Qusak, Ya. M. (Engineer); Zatkovetskii, O. N.; Klimenko, V. N.; Magybullina, A. A.; Chepaskina, S. M.

ORG: none

TITLE: Development and investigation of the air cooling system for the high-pressure turbine rotor of GT-6-750 TMZ

SOURCE: Energomashinostroyeniye, no. 10, 1965, 22-25

TOPIC TAGS: turbine, turbine cooling, gas turbine, blade cooling/ GT-6-750 gas turbine

ABSTRACT: In conjunction with the development of gas turbine GT-6-750 (initial gas temperature 750C, pressure 5.8 kg/cm²), several air cooling systems for the high-pressure turbine rotor were designed and tested at the Ural Turbine Factory and Institute of Heat Physics of the AN UkrSSR (Ural'skiy turbomotorny zavod i Institute tekhnicheskoy teplofiziki AN UkrSSR). The development of the final

Cord 1/4

UDC: 621.438:62-71.001.5

L 21650-66

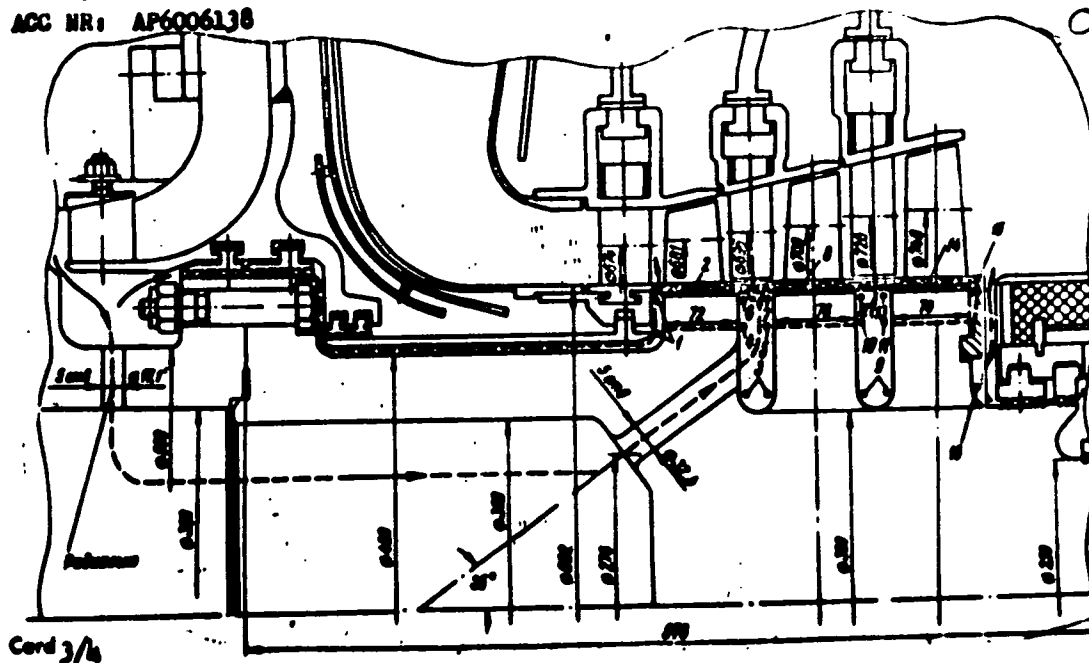
ACC NR: AP6006138

cooling system shown in Fig. 1 is discussed and the temperature distributions at the blade roots and in the turbine wheel are graphically presented for cooling air flows of 0.9 and 0.73 kg/sec respectively (0.73 kg/sec represents 1.7% of the total gas flow). The values of local cooling air pressure, temperature, flow rate, and heat transfer coefficient at the 16 locations in Fig. 1 are tabulated. It was found that the cooling system maintained all metal temperatures below 410C (at 0.73 kg/sec) and calculations show that the cooling flow can be further reduced to 0.4--0.45 kg/sec without dangerous temperatures. With such a cooling system, perlite steels can be used with gas temperatures of up to 900C. The experiments confirmed the accuracy of previously proposed methods for calculating the cooling system parameters (Ye. P. Dyben, *Issledovaniye sistem vodushnogo okhlazhdeniya roterov gazovykh turbin. Avtoreferat dissertatsii. LPI im. M. I. Kalinina, 1964*).

Card 2/4

L 21650-66

ACC NR: AP6006138



L 21650-66

ACC NR: AP6006138

Fig. 1. Cooling system for
GT-6-750 gas turbine rotor.

Orig. art. has: 1 table and 4 figures.

SUB CODE: 21, 13/ SUBM DATE: none/ ORIG REF: 003

Card 4/5

L 2659-65 EWG(j)/EWT(m)/EPT(c)/EWA(d)/EWP(t)/EPR/EWP(b) Pr-4/Ps-4 IJP(c)
JD/JG/WB

ACCESSION NR: AF5005566 S/0080/65/038/002/0341/0345

AUTHOR: Sayfullin, R. S.; Nasybullina, F. I.

TITLE: Protection of silver against darkening

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 2, 1965, 341-345

TOPIC TAGS: silver darkening, beryllium oxide film, electrochemistry, chromate treatment, ethanol scouring, hydrogen sulfide, silver sulfide, beryllization

ABSTRACT: Optimal conditions for depositing beryllium oxide films on silver or silver plated materials (Plating v. 48, 285, 1961) were studied under laboratory and commercial conditions, and the protection of silver by chromate treatment was also studied. Silver-plated or silver-rubbed watch dials were treated and the best results were obtained with solutions of 2.4-3.4 g/liter $\text{BeSO}_4 \cdot 4\text{H}_2\text{O}$ with the addition of ammonia to pH 5.7-5.8, by 3-5 min. treatment at a current density of 0.005 A/cm^2 . Scouring in ethanol at 20°C is recommended as pretreatment if required, and Ag, Ni, or Cu ions are shown to decrease the quality of the protective films, so that their removal by preliminary electrolysis is recommended. The quality of the films is also impaired by the Cl ions present in wash waters or in the electrolyte

As Ni, or Cu ions are shown to decrease the quality of the process, it is recommended that their removal by preliminary electrolysis is recommended. The quality of the films is also impaired by the Cl ions present in wash waters or in the electrolyte

Cont 1/2

L 32659-65

ACCESSION Nr: AP5005566

on: by sandblasting of the silver surface before the deposition of films. Films of higher quality were produced on silver-plated surfaces than on silver-rubbed material. Protective films obtained by electrochemical deposition in potassium chromate solutions had a slightly yellow coloration but better stability in hydrogen sulfide atmospheres than chemically deposited films. "Beryllization was studied at the Chistopol'skiy chasovoy zavod (Chistopol' watch factory) with the participation of A. V. Kazantseva, L. V. Mikhaylitsyna, A. A. Skorobogatova, R. Yu. Timerina and V. N. Fokinskaya." Orig. art. has: 3 tables.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut imeni S. M. Kirova
(Kazan chemical engineering institute)

SUBMITTED: 03May53

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 002

OTHER: 009

Card 2/2

SAYFULLIN, R.S.; NASYBULLINA, F.I.

Increasing the hardness of silver electroplating. Izv.vys.ucheb.
zav; khim.i khim.tekh. 4 no.5:817-820 '61. (MIRA 14:11)

1. Kazanskiy khimiko-tekhnologicheskii institut imeni Kirova,
kafedra neorganicheskoy khimii.

(Silver--Plating)

NASYBULLINA, Kh.S.

Changes in the biological properties of the blood in
brucellosis. Izv. AN Kazakh. SSR. Ser. kraev. pat. no.5:
72-78 '51. (MLRA 10:2)

(BRUCELLOSIS) (BLOOD--ANALYSIS AND CHEMISTRY)

NAZYBULLINA, Kh. I., dotsent

Stabilization of donor blood used for exchange transfusion
of blood. Probl. gemat. i perel. krovi 9 no.5:49-51 My '64.
(MIRA 18-3)
1. Kafedra patologicheskoy fiziologii (zav.- prof. G. I. Gloguz
Alma-Atinskogo meditsinskogo instituta.

KUDRYAVTSEVA, N.P.; KACHURETS, V.I.; NASYBULLINA, S.Kh.

Use of strophanthin in the compound treatment of cardiovascular disorders in toxic diphtheria. Kaz.med.zhur. no.3:42-43 My-Je '62. (MIRA 15:9)

1. Kafedra detskikh infektsiy (zav. - prof. N.P.Kudryav'tseva) i difteriynoye otdeleniye 1-y infektsionnoy klinicheskoy bol'nitsy imeni prof. A.F.Agafonova (glavnyy vrach - D.P.Petrov). Kazanskogo meditsinskogo instituta.
(STROPHANTHIN) (DIPHThERIA)
(CARDIOVASCULAR SYSTEM---DISEASES)

S/137/62/000/003/051/19:
A006/A101

187500
AUTHORS: Nasynbayev, G. N., Presnyakov, A. A.

TITLE: On the effect of the crystallization rate on the structure and properties of technically pure metals

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 26, abstract 30172
(Tr. In-ta yadern. fiz. AN KazSSR, 1961, v. 4, 78 - 84)

TEXT: The authors investigated the effect of the rate of crystallization of Al (grade ABOO [AVOO]), Cu (MO), Zn (MO [TsO]), Sn (OI), Sb (CVO [SuO]), Pb (CI [S1]), and Mg (MGI), on their structure and properties. It is shown that microhardness of quenched specimens is below that of slowly cooled samples. Changes in the crystallization rate cause changes in the structure and properties of technically pure metals, since at a high rate the admixtures form metastable solid solutions with the metal. The results are tabulated, and photographs of microsections and radiographs are given.

A. Tseydler

[Abstracter's note: Complete translation]

Card 1/1

NASYPAYKO, V. M., Cand of Agric Sci -- (diss) "Biological and Management Peculiarities of Mixing Winter Wheat," Odessa, 1959, 16 pp (Odessa Agricultural Institute) (KL, 1-60, 124)

NASYPAYKO, V.M.

Intervarietal breeding of winter wheat. Agrobiologiya no.3:
335-343 My-Je '59. (MIRA 12:9)

1. Vsesoyuznyy selektsionno-geneticheskiy institut, g.Odessa.
(Wheat breeding)

NASYPAYKO, Vasilii Mitrofanovich; ISAROV, Yuriy Terent'yevich, kand. sel'khoz. nauk; KIRICHENKO, F.G., laureat Leninskoy premii, akademik; VINNITSKIY, S., red.; MOLCHANOVA, T., tekhn. red.

[Varieties and seeds; seed production of grain, pulse, and oleaginous crops in the southern Ukraine] Sort i semena; semenovodstvo zernovykh, zernobobovykh i maslichnykh kul'tur na iuge Ukrainy. Predisl. i obshchaya red. F.G.Kirichenko. Odessa, Odesskoe knizhnoe izd-vo, 1960. 243 p.

(MIRA 14:7)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina i Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Kirichenko)
(Ukraine--Seed production)

BLAZHEVSKIY, Ye.V., dvazhdy Geroy Sotsialisticheskogo Truda; VOVCHENKO, I.V., kand. sel'khoz. nauk, zasl. agronom Ukr.SSR; VOROB'YEV, N.Ye., st. nauchn. sotr.; GESHELE, E.E., doktor biol. nauk, prof.; ZUBRITSKIY, A.A., agronom; KISEL'GOF, Z.S., inzh., zasl. mekhanizator sel'skogo khos. Ukr.SSR; KLYUCHKO, P.F., kand. sel'khoz. nauk; KORCHAGIN, A.Ye.; LEBEDEV, Ye.M., st. nauchn. sotr.; NASYPAYKO, V.M., kand. sel'khoz.nauk; PIKUS, G.P., kand. sel'khoz.nauk; RYACH, V.N., doktor sel'khoz. nauk, prof.; SPIVAK, I.I., sootekhnik; TEMCHENKO, L.V., kand. sel'khoz. nauk; FEDULAYEV, A.A., agronom; YAKOVENKO, V.A., kand. tekhn.nauk; KITAYEV, I.A., kand. sel'khoz. nauk, red.; MUSIYKO, A.S., akademik, red.; VINNITSKIY, S.P., red.; MOLCHANOVA, T.N., tekhn. red.

[For high corn yields] Za bol'shiu kukurusu. [By] E.V. Blazhevskii i dr. Odessa, Odesskoe knishnoe izd-vo, 1962. 173 p. (MIRA 16:7)

1. Zven'yevy kolkhosa im. Gor'kogo Kotovskogo rayona na Odesshchine (for Blazhevskiy). 2. Glavnyy agronom sovkhosa "Bessarabskiy" (for Korchagin). 3. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Musiyko). (Ukraine--Corn (Maize))

NASYPAYKO, V.M., kand. sel'skokhoz. nauk

Yield of high-quality winter wheat seeds as compared with
seeds of subsequent reproductions. Agrobiologiya no.3:335-
341 My-Je '65. (MIRA 18:11)

1. Vsesoyuznyy selektsionno-geneticheskiy institut, Odessa.

S/020/62/145/005/012/020
B106/B144

AUTHORS: Zavgorodniy, S. V., and Nasyr, I. A.

TITLE: Cycloalkylation of monoalkyl benzenes by cyclohexene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 5, 1962, 1061-1063

TEXT: The authors studied the cycloalkylation of toluene, ethyl benzene, and n-propyl benzene by cyclohexene in the presence of $\text{BF}_3 \cdot \text{H}_2\text{PO}_4$ as a catalyst under varying conditions. At molar ratios of alkyl benzene : cyclohexene : catalyst = (1 to 5) : 1 : (0.1 to 0.4), mainly monoalkylation occurs in o- and p-position to the alkyl radical of the aromatic hydrocarbon, with the p-product prevailing. An increase from 1 to 5 alkyl benzene moles per 1 mole cyclohexene under otherwise equal conditions increases the monocyclohexyl alkyl benzene yield. Optimum conditions: toluene: 20°C, molar ratio = 5 : 1 : 0.3, yield 91%; ethyl benzene: 60°C, molar ratio = 3 : 1 : 0.3 (or 5 : 1 : 0.4), yield 90%; n-propyl benzene: 60°C, molar ratio = 3 : 1 : 0.3, yield 87%, besides 8.6% dicyclohexyl-n-propyl benzenes. At the molar ratio alkyl benzene : cyclohexene : catalyst

Card 1/3

S/020/62/145/005/012/020
B106/B144

Cycloalkylation of ...

- 0.5 : 1 : 0.3, dicyclohexyl alkyl benzenes form with considerable yields decreasing in the order toluene > ethylbenzene > n-propyl benzene while the yields in monocyclohexyl alkyl benzenes increase in the same order. The yields in monocycloalkylation show a maximum in all three cases within the range 20 - 80°C; whereas those in dicyclohexyl alkyl benzenes are almost independent of temperature. In the range of 0.2 - 0.4 moles per mole of cyclohexene, the amount of catalyst does not affect the yield in monocyclohexyl alkyl benzenes. The cyclohexene is added, with vigorous stirring, to an alkyl benzene - catalyst mixture. The slower the addition the better the yields, particularly in the alkylation of n-propyl benzene. Stirring after adding cyclohexene has no effect in the case of toluene and ethyl benzene, but increases the yields in dicyclohexyl-n-propyl benzenes at the expense of the monocyclohexyl-n-propyl benzenes. Main reaction products: m-cyclohexyl toluene: colorless liquid, b. p. 101°C/4 mm, d_4^{20} 0.9380, n_D^{20} 1.5244; p-cyclohexyl-ethyl benzene: b. p. 108 - 109°C/4 mm, d_4^{20} 0.9231, n_D^{20} 1.5204; p-cyclohexyl-n-propyl benzene: b. p. 119 - 120°C/4 mm, d_4^{20} 0.9216, n_D^{20} 1.5160. There are 4 figures.
Card 2/3

Cycloalkylation of ...

5/020/62/145/005/012/020
B106/B144

ASSOCIATION: Kiyevskiy politekhnicheskii institut (Kiev Polytechnic
Institute), Institut organicheskoy khimii Akademii nauk USSR
(Institute of Organic Chemistry of the Academy of Sciences
UkrSSR)

PRESENTED: March 21, 1962, by A. V. Topchiyev, Academician

SUBMITTED: March 21, 1962

Card 3/3

NASYR, I.A.; ZAVGORODNIY, S.V.

Synthesis and autoxidation of methylcyclohexylbenzene. Ukr. khim.
zhur. 30 no.8:862-867 '64. (MIRA 17:11)

1. Kiyevskiy politekhnicheskij institut i Institut organicheskoy
khimii AN UkrSSR.

REMARKS:

1. The subject of this report is a

1. The subject of this report is a

AKISHEV, T.A.; NASYRKHANOV, A.N.

Practice in applying electric prospecting to the karst-
interstitial waters in central Kazakhstan. Izv. AN Kazakh.
SSR. Ser. geol. 21 no.2:78-86 Mr-Ap'64. (MIRA 17:5)

1. Tsentral'no-Kazakhstanskoye geologicheskoye upravleniye,
Karaganda.

NASYROV, A.

Dissertation defended for the degree of Candidate of Economic Sciences
at the Institute of Economics

"Heavy Industry of the Uzbek SSR in the Postwar Period (1945-1958)."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

NASTROY, A., assistant

Materials on the study of corn and field pests. 1954.
Tashk. gos. ped. inst. 35 no. 1:50-51. 1954. (P. 1:50-51)

L 15739-66 MT(1)/T/MP(k)

LP(e)

WM/00

ACC NR: AP6000901

SOURCE CODE: UR/0181/65/007/012/3704/3706

AUTHORS: Smolenskiy, G. A.; Nasyrov, A.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Ferroacoustic resonance with longitudinal ultrasonic waves

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3704-3706

TOPIC TAGS: ultrasonic wave, ferroelectric resonance, acoustic resonance, spin phonon interaction, single crystal, yttrium compound, magnetic field

ABSTRACT: Whereas earlier investigations of ferroacoustic resonance were made by excitation of transverse sound waves, in the present investigation the authors studied spin-phonon interaction in single crystals of yttrium ferrite with garnet type structure excited with longitudinal sound waves in the frequency range from 100 to 220 Mc at room temperature. The samples were cut along the [110] axis in the form of parallelepipeds measuring 7.5 x 2 x 2 mm or cylinders 7.4 mm long and 3.8 mm in diameter. The measurements were made with a

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L 15739-46

ACC NR: AP6000901

modified pulsed installation described by A. A. Galkin and A. P. Korolyuk (PTK no. 6, 99, 1960). The excitation was by means of X-cut crystal plates with natural frequencies 11 and 17 Mc, respectively. The dependence of the intensity of the ferroacoustic resonance on the angle between the magnetic field and the wave vector showed the theoretically expected minimum at 90° and a maximum near 50° . To check whether the residual interaction at 0 and 90° is due to incomplete saturation of the sample, special pole pieces were used to modify the field configuration. These pole pieces reduced the field by decreasing the demagnetizing component of the field. The authors also measured the velocity of the longitudinal ultrasonic waves, the damping coefficient, and the acoustic Q. These were found to be 7.15×10^5 cm/sec, 0.18 cm^{-1} , and 10^4 , respectively. The idea of using the pole pieces is due to A. G. Gurevich. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 26Jul65/ ORIG REF: 004/ OTH REF: 007

L 07104-67 EWT(1)/EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/JG

ACC NR: AP6029118

SOURCE CODE: UR/0048/66/030/006/0998/1001

AUTHOR: Smolenskiy, G.A.; Nasyrov, A.

ORG: none

TITLE: Spin-phonon interaction in yttrium ferrite (excitation of magnetoelastic waves by ultrasound) [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 998-1001

TOPIC TAGS: yttrium compound, ferrite, single crystal, ultrasonic absorption, magnetic effect, magnetic field effect, spin phonon interaction

ABSTRACT: The authors have investigated the effect of the magnitude and direction of an external magnetic field on the absorption at room temperature of longitudinal ultrasonic waves with frequencies from 50 to 220 MHz propagating parallel to the 110 axis in yttrium ferrite single crystals. The ultrasound was introduced and detected 7.5 mm long cylindrical or parallelepipedal specimens. Resonance absorption of the ultrasound was observed at a magnetic field strength that varied approximately linearly with the frequency. This absorption is ascribed to production of magnetoelastic vibrations as a result of spin-phonon interaction. The strength of the absorption was investigated as a function of the angle θ in the (100) plane between the external magnetic field and the wave vector of the ultrasound. Maximum absorption was found

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L 07104-67

ACC NR: AP6029118

near $\theta = 50^\circ$ and minimum absorption, at $\theta = 0$ and $\theta = 90^\circ$; this is in agreement with the theory of B.Kh.Ishmukhametov (Fiz. metallov i metallovedeniye, 17, 323 (1964)). The critical saturation field (the sum of the anisotropy field and the demagnetizing field) and the corresponding critical frequency were calculated; the critical frequency was of the order of 2×10^9 Hz. The propagation velocity of longitudinal ultrasound in the specimens was 7.15×10^5 cm/sec, and the acoustic Q factor was 10^4 at 185 MHz. Orig. art. has: 2 formulas and 6 figures.

SUB CODE: 20

SUBM DATE: 00

ORIG. REF: 003

OTH REF: 006

Card 2/2

NASYROV, A.Kh. (M.skuva)

Natural vibrations of plates and circular cylindrical shells
reinforced by stiffening ribs. Stroim.mekh. i rasch.soor. 7
no.5:42-46 '65.

(MIRA 18:10)

34933
S/119/62/000/003/004/009
D201/D303

13, 1530

AUTHOR: Nasyrov, A.M.

TITLE: Dynamic error of acceleration meters

PERIODICAL: Priborostroyeniye, no. 3, 1962, 10 - 12

TEXT: The author evaluates the dynamic error of an acceleration meter when the acting accelerations either increase linearly (in piece-wise approximation) or have the shape of triangular pulses. In the case of linear approximation (linear increase of acceleration from 0 to τ and constant acceleration after $t \geq \tau$) the max. meter error at $t \geq \tau$ is derived as the simplified

$$\Delta x_{\max} = - \frac{a_0}{\omega_0^2 \tau} e^{-\frac{\delta}{\omega_1} (\pi - \arctg \frac{\omega_1}{\delta})}$$

where a_0 - the constant value of acceleration at $t \geq \tau$; δ - attenuation coefficient; ω_0 - frequency of free oscillations of the in-

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Dynamic error of acceleration meters

S/119/62/000/003/004/009
D201/D303

strument; $\omega_1 = \sqrt{\omega_0^2 - \sigma^2}$. If the spacing between the increasing acceleration pulses is large, (the acceleration pulse has the shape of a triangle, with max. acceleration value a_0 at time τ_1 and falling to zero at $\tau_1 + \tau_2$), the max. value of the dynamic relative error of the instrument α is determined by

$$\alpha = \frac{\Phi(r)}{2\pi\beta}, \quad (6)$$

where r - the damping coefficient and β - the ratio of the time of increase of acceleration to the period of free oscillations of the instrument. The analysis of the function $\Phi(r, \gamma)$ shows that for $\gamma = 0$, corresponding to increasing acceleration, $\Phi(r)$ has the form of a monotonically increasing function and with r varying from 0 to 1 $\Phi(r)$ takes the values from 1 to 2. For $\gamma > 0$ $\Phi(r, \gamma)$ has always higher values than those of $\Phi(r, 0)$, which means that the dynamic error during the time of decreasing acceleration is greater than that during the increasing acceleration of the same duration. The

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Dynamic error of acceleration meters

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analysis also shows that when $\gamma = 0$ and $r = 0.6 - 0.7$, $\Delta(r)$ may be taken as equal to $2r$. In this case in piece-wise approximation of the acceleration change the dynamic error may be taken simply as $\alpha = r/\pi p$. There are 3 figures and 2 Soviet-bloc references.

Card 3/3

NASYRCV, A. Z.

NASYRCV, A. Z. -- "Independent Work of Pupils on Mathematics Assignments in the Fifth through Tenth Calsses." Academy of Pedagogical Sciences RSFSR. Sci Res Inst of Teaching Methods. Moscow, 1955. (Dissertation for the Degree of Candidate in Pedagogical Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

BEKAREVICH, A.N. (Gomel'); BERESLAVSKIY, M.D. (Uzhgorod); GROMOV, A.P. (Melekess);
 DUBINCHUK, Ye.S.; TESLENKO, I.P. (Kiyev); ZOLOTOVITSKIY, Ye.N. (Routovo);
 KAZHDAN, B.I. (Leningrad); KLIMENCHENKO, D.V. (Berdiansk); MEL'NIKOV,
 K.S. (Sterlitamak); MIKHAYLOV, K.F. (Magnitogorsk); NASYMOV, A.Z. (Sterl-
 itamak); NEPEDOV, D.I. (Moskva); NOVOSILOV, S.I. (Moskva); PRAVILOV, B.R.
 (n. Kanino Ryazanskoy obl.); PRINTSEV, N.A. (Kursk); SEMENOVICH, A.F.
 (Sverdlovsk)

Discussion of the plans for the programs. Mat. v shkole no.6:5-28
 M.-D '59. (MIRA 13:3)

(Mathematics--Study and teaching)

NASYROV, B.; SHCHEKIN, V.A., zasl. deyatel' nauki i tekhniki Uzbekskoy
SSR, prof., spets. red.; BESSONOV, M.P., red.; BAKHTIYAROV, A.,
tekhn. red.

[Karakul sheep on state farms in Uzbekistan] Karakulevodstvo v
sovkhozakh Uzbekistana. Tashkent, Gosizdat UzSSR, 1962. 133 p.
(MIRA 16:5)

(Uzbekistan—Karakul sheep)

ACCESSION NR: AP4018370

S/0120/64/000/001/0085/0087

AUTHOR: Nasyrov, F.; Sokovishin, V. A.

TITLE: Resolution of an argon ionization chamber with an admixture of water vapor

SOURCE: Pribery i tekhnika eksperimenta, no. 1, 1964, 85-87

TOPIC TAGS: ionization chamber, argon ionization chamber, argon ionization chamber resolution, argon water vapor chamber resolution, argon water vapor ionization chamber

ABSTRACT: A grid-type pulse ionization chamber was filled with argon at 2 atm with a water-vapor admixture at a partial pressure of 2.3 to 0.5 torr (temperatures -3 to -24C). This combination yielded the highest resolution for a chamber having no collimating or focusing devices. The chamber voltage was 1 kv, with 25% of it on the grid. Variations within 0.8 - 1.2 kv, as well as

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ACCESSION NR: AP4018370

increasing the pressure to 3 atm, had little effect. Decreasing the pressure to 1 atm with a corresponding increase in the interelectrode separations resulted in some impairment to the resolving power. The pulse-height distribution of alpha-particles Pu^{232} and Pu^{239} with half-widths of the principal maxima of 42 and 50 kev, respectively, is reported. The conclusion is drawn that "the presence in argon of a considerable admixture of H_2O (up to 0.15%) does not impair, but rather improves the chamber characteristics." Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 07Mar63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: NS

NO REF SOV: 001

OTHER: 003

Card 2/2

ACCESSION NR: AP4036531

8/0089/64/016/005/0449/0451

AUTHOR: Nasyrov, F.

TITLE: Specific ionization along the path of U sup 235 and Cm sup 244 fission fragments

SOURCE: Atomnaya energiya, v. 16, no. 5, 1964, 449-451

TOPIC TAGS: fission fragment ionization, uranium 235 fragment, curium 244 fragment

ABSTRACT: This study refers to specific ionization along the fragment path in a mixture of argon and CH_4 (5%). U^{235} fragments were the result of thermal neutron bombardment, while Cm^{244} fragments were the result of spontaneous fission. Measurements were made with the aid of a special telescope consisting of ten ionization chambers separated one from another by wire screens (meshes 5 mm square, wire 0.1 mm diam). The collecting electrodes had a diameter of 0.5 mm. From all fragments there were selected those coinciding with the telescope axis of the chambers and reaching chamber #10 at which pulses were collected. The amplitude of impulse V_1 in the n-th chamber was proportional to the number of ion

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ACCESSION NR: AP4036531

pairs formed by a fragment over length unit $dn/dR V_1 = (dn/dR)_1 \Delta R e/C$ where
 ΔR = distance between screens (30mm); e = electron charge; C = electric
 capacitance of the chamber including amplifier input. It was found that at equal
 velocities the charge of a most probable heavy fragment is on an average higher
 than that of a light fragment. However, the fragment velocity determines the
 threshold below which electrons are not present. Orig. art. has: 4 figures, 3
 formulas, no tables.

ASSOCIATION: None

SUBMITTED: 14Oct63

DATE ACQ: 03Jun64

ENCL: 00

SUB CODE: NP

NO REF SOV: 008

OTHER: 000

Cord 2/2

L 41335-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b)/EWA(h) Pu-4 IJP(c) JD/WW/JG/DM

ACCESSION NR: AP5005811

S/0089/65/018/002/0181/0183

AUTHOR: Malinkin, A. A.; Nasyrov, F., Kolesov, V. F.

TITLE: Characteristics of asymptotic neutron spectrum in uranium

SOURCE: Atomnaya energiya, v. 18, no. 2, 1965, 181-183

TOPIC TAGS: uranium fission, neutron spectrum, asymptotic spectrum, fission cross section, diffusion length

ABSTRACT: The purpose of the investigation was to determine more precisely the characteristics of the asymptotic neutron spectrum in natural uranium. Measurements were made of the fission cross sections of U^{235} and U^{238} , and of other spectral indicators. In addition, a direct measurement was made of the neutron spectrum in the energy region up to 0.95 MeV. The measurements were made with a spherical critical assembly with an active zone of U^{235} (90% enrichment) in a distance of 65 cm from the boundary of the active zone and not less than 32 cm from its external boundaries. The neutron spectrum was measured at a point where

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L 40836-65

ACQUISITION NR: AP505811

It reached its equilibrium state. The values obtained for the various cross sections, for the diffusion length, and for the cross section ratios are listed in Fig. 1 of the Enclosure, and the asymptotic neutron spectrum is shown in Fig. 2 of the Enclosure. The results agree within 10% with those obtained by others. Orig. art. has 1 figure and 2 tables.

ASSOCIATION: None

SUBMITTED: 061ab64

ENCL: 02

SUB CODE: NP

NR REF SOV: 001

OTHER: 006

Card 2/4

1-2225-66 RT(a)/RIA(a) IM

ACCESSION NR: AP6423763

UR/0000/01/010/000/0000/0000

539.173.8

AUTHOR: Kasyrov, F.; Kostovtsov, A. A.; N'ln, Yu. I.; L'nev, S. V.

TITLE: Track distribution of specific ionization as a function of the initial energy of fission fragments of U super 235

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 244-250

TOPIC TAGS: thermal neutron, nuclear fission, uranium, ionization

ABSTRACT: Using a telescope consisting of 11 pulse ionization chambers and a two-dimensional pulse-height analyzer, the authors measured the distribution of specific energy loss by ionization in Ar + CH₄ (5%) over the track as a function of the initial energy of the fission fragments. Fission fragments of U²³⁵ produced by thermal neutrons were studied in the 70 - 115.8 MEV range (light fragments) and 24 - 65 MEV (heavy fragments). The data obtained served to formulate relations between the specific ionization and the velocity of the fission fragments. These relations indicate certain differences in the nature of the ionization energy losses of the light and heavy fragments. Orig. art. has: 7 figures.

CARD 1/2

L 2225-46

ACCESSION NR: AP0009763

ASSOCIATION: None

SUBMITTED: 218p04

ENCL: 00

SUB CODE: NP

NO REF SOV: 006

OTHER: 007

CARD 2/2

ACC NR: AP0013495

UR/0120/66/000/002/0064/0065

AUTHOR: Nasyrov, P.; Pashkin, N.P.

ORG: None

TITLE: Ionization chamber for the registration of fission fragments at a high alpha activity background

SOURCE: Pribery i tekhnika eksperimenta no. 2, 1966, 64-65

TOPIC TAGS: *nuclear fission, pulse generator, oscilloscope,* ionization chamber, fast response ionization chamber, fission registration chamber, distributed amplifier / UR-4 distributed amplifier, pulse generator / ES-19 pulse generator, oscilloscope / OS-4 oscilloscope

ABSTRACT: This paper describes a fast (25 nsec) response ionization chamber for the registration of fission fragments, developed to effect an improvement over current designs with a pulse rise time of about 100 nsec. The faster response is achieved by an interlocking wire mesh electrode arrangement limiting electron trajectories to about 5 mm; by lower pressure of the filling gas; and by locating the fission sample as a thin film deposit at the middle, on the inside of the chamber walls. At 200 - 250 torr pressure of the CH_4 gas filling and an electron gathering potential of 500 volts, the fission pulse amplitude was about 3 mv and the pulse rise time about 25 nsec. Satisfactory camera characteristics were obtained from samples of Cm^{224} and Pu^{239} with respective alpha activities of $3 \cdot 10^7$ and $8 \cdot 10^7 \text{ sec}^{-1}$, inspite of a high alpha background.

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UDC: 539.1.074

ACC NR: AP6013495

Chamber-initiated pulses were investigated by a circuit comprising a wide band preamplifier and a distributed amplifier, UR-4, which had its 20 nsec rise time confirmed by a pulse generator G5-19 with 7 nsec pulse rise fronts. Oscilloscope S-4 was used to display the pulses for photography. A theory of chamber response is given. Orig. art. has: 3 figures, 1 formula.

SUB CODE: 18, 20, ~~09~~ SUBM DATE: 05Apr65 ORIG REF: 002 OTH REF: 004

Card 2/2

NASYROV, G.A.

Hypersensitization with mercury vapors. Izv. AN Turk. SSR no. 3:
96 '55. (MLRA 9:5)

1. Institut fiziki i geofiziki AN Turkmenskoy SSR.
(Astronomical photography)

6.4700

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S/035/59/000/003/016/039

A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959, No 3,
p. 42, # 1957

AUTHOR: Nasyrov, G. A.

TITLE: Radar Determinations of Meteoric Activity in July-September 1957
at Ashkhabad

PERIODICAL: Izv. AN TurkmSSR, 1957, No. 6, p. 100

TEXT: This is a report on radar determinations of meteoric activity carried out by the scientific workers of the Institut fiziki i geofiziki (Institute of Physics and Geophysics) of AS TurkmSSR. The work was conducted according to the plan of IOY. A station operated at a wavelength of 4.2 m was briefly described. The observations showed that the maximum number of meteors were on August 10-15, 1957, which fact should be ascribed to the Perseid stream. The diurnal variation curve has a minimum at about 14^h of local solar time and maxima in the mornings and evenings.

B. T.

Translator's note: This is the full translation of the original Russian abstract.

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